

Amendments to the Claims

The listing of claims below is intended to replace all prior listings of the claims:

1. (Currently Amended) A ceramifying composition for forming a fire resistant ceramic under fire conditions, the composition comprising:
 - (i) at least 10% by weight of silicate mineral filler;
 - (ii) from 8 % to 40 % by weight of at least one inorganic phosphate that forms a liquid phase at a temperature of no more than 800°C selected from ammonium phosphate, ammonium polyphosphate and ammonium pyrophosphate;
 - (iii) at least 15% by weight based on the total weight of the composition of a polymer base composition comprising at least 50% by weight of an organic polymer;

wherein the composition ~~comprises less than 1% by weight of the composition of intumescent agents other than said inorganic phosphate~~, is essentially free of charring agents which together with said inorganic phosphate provide intumescence; and wherein said composition forms a self-supporting ceramic on exposure to an elevated temperature experienced under fire conditions that undergoes less than a 20% change in linear dimensions along its length.

2. (Cancelled)
3. (Previously Presented) A ceramifying composition for forming a fire resistant ceramic under fire conditions, the composition consisting essentially of:
 - (i) at least 15% by weight, based on the total weight of the composition, of a polymer base composition comprising at least 50% by weight of an organic polymer;
 - (ii) 8-40% by weight of at least one inorganic phosphate that forms a liquid phase at a temperature of no more than 800°C, based on the total weight of the composition;
 - (iii) at least 10% by weight, based on the total weight of the composition, of silicate mineral filler; and
 - (iv) optionally additional inorganic filler in an amount of up to 30%;wherein the composition forms a self-supporting ceramic on exposure to an elevated temperature experienced under fire conditions.

4. (Cancelled)

5. (Previously Presented) A ceramifying composition according to claim 1 wherein on exposure to an elevated temperature experienced under fire conditions a rectangular test specimen of the ceramifying composition undergoes less than a 10% change in linear dimensions along its length.

6. (Previously Presented) A ceramifying composition according to claim 3 wherein on exposure to an elevated temperature experienced under fire conditions a rectangular test specimen of the ceramifying composition undergoes less than a 5% change in linear dimensions along its length.

7. (Previously Presented) A ceramifying composition according to claim 1 wherein on exposure to an elevated temperature experienced under fire conditions a rectangular test specimen of the ceramifying composition undergoes less than a 1% change in linear dimensions along its length.

8. (Previously Presented) A ceramifying composition according to claim 1 wherein inorganic components are present in an amount of at least 40% by weight based on the total weight of the composition.

9. (Previously Presented) A ceramifying composition according to claim 1 wherein inorganic components are present in an amount of at least 60% by weight based on the total weight of the composition.

10. (Previously Presented) A ceramifying composition according to claim 1 wherein inorganic components are present in an amount of at least 70% by weight based on the total weight of the composition.

11. (Previously Presented) A ceramifying composition according to claim 1 wherein the inorganic phosphate is ammonium polyphosphate present in an amount of from 20 to 40% by weight of the total composition.

12. (Previously Presented) A ceramifying composition according to claim 1 wherein the silicate mineral filler is present in an amount of at least 15% by weight of the total composition.

13. (Previously Presented) A ceramifying composition according to claim 1 wherein the composition further comprises an additional inorganic filler component comprising at least one compound selected from the group consisting of oxides, hydroxides and carbonates of aluminum, magnesium and calcium, the total of said additional inorganic filler constituting up to 20% by weight of the total ceramifying composition.

14. (Previously Presented) A ceramifying composition according to claim 13 wherein the additional inorganic filler comprises at least one compound selected from the group consisting of magnesium hydroxide, alumina trihydrate, magnesium carbonate and calcium carbonate and is present in an amount of from 5 to 20% by weight of the total ceramifying composition.

15. (Previously Presented) A ceramifying composition according to claim 1 wherein the composition further comprises calcium carbonate in an amount of from 5 to 20% by weight of the total composition.

16. (Previously Presented) A ceramifying composition according to claim 1 wherein the organic polymer comprises at least one polymer selected from the group consisting of thermoplastic polymers, thermoset polymers, thermoplastic elastomers, cross linked elastomers and rubber.

17. (Original) A ceramifying composition according to claim 16 wherein the organic polymer comprises at least one polymer selected from the group consisting of thermoplastic and crosslinked polyethylenes and copolymers and blends thereof wherein the polymer has a density in the range of from 890 to 960 g/litre.

18. (Cancelled)

19. (Previously Presented) A cable comprising at least one elongated functional element and at least one insulating layer comprising the ceramifying composition of claim 1.

20. (Previously Presented) A cable according to claim 19 wherein the at least one insulating layer is a single insulating layer about the elongated functional element.

21. (Previously Presented) A cable according to claim 20 wherein the single insulating layer has an inner surface abutting the functional element and a free outer surface.

22. (Original) A cable according to claim 21 wherein the single insulating layer has an outer surface free of coatings.

23. (Original) A cable according to claim 19 wherein the single insulating layer forms a self-supporting ceramic on exposure to an elevated temperature experienced under fire conditions.

24. (Original) A cable according to claim 19 wherein the single insulating layer composition when formed into a rectangular test specimen undergoes less than 20% change in linear dimensions along its length on exposure to an elevated temperature experienced under fire conditions.

25. (Previously Presented) A cable according to claim 19 wherein the inorganic phosphate is ammonium polyphosphate present in an amount in the range of from 8 to 20% by weight of the total ceramifying composition.

26. (Previously Presented) A cable according to claim 19 wherein the ceramifying composition further comprises 5 to 20% additional inorganic filler comprising at least one compound selected from the group consisting of magnesium hydroxide, alumina trihydrate, magnesium carbonate and calcium carbonate.

27. (Previously Presented) A ceramifying composition according to claim 1 wherein a rectangular test specimen of the ceramifying composition has a flexural strength of at least 0.3 MPa on exposure to an elevated temperature experienced under fire conditions.

28. (Original) A ceramifying composition according to claim 27 wherein the flexural strength is at least 1 MPa on exposure to an elevated temperature experienced under fire conditions.

29. (Original) A ceramifying composition according to claim 27 wherein the flexural strength is at least 2 MPa on exposure to an elevated temperature experienced under fire conditions.

30-32. (Cancelled)

33. (Previously Presented) A ceramifying composition according to claim 3 wherein on exposure to an elevated temperature experienced under fire conditions a rectangular test specimen of the ceramifying composition undergoes less than a 20% change in linear dimensions along its length.

34. (Previously Presented) A ceramifying composition according to claim 3 wherein on exposure to an elevated temperature experienced under fire conditions a rectangular test specimen of the ceramifying composition undergoes less than a 10% change in linear dimensions along its length.

35. (Previously Presented) A ceramifying composition according to claim 3 wherein the optional additional inorganic filler comprises calcium carbonate, which is present in an amount of from 5 to 20% by weight of the total composition.

36. (Previously Presented) A ceramifying composition according to claim 3 wherein the organic polymer comprises at least one polymer selected from the group consisting of thermoplastic polymers, thermoset polymers, thermoplastic elastomers, cross linked elastomers and rubber.

37. (Previously Presented) A ceramifying composition according to claim 36 wherein the organic polymer comprises at least one polymer selected from the group consisting of thermoplastic and crosslinked polyethylenes and copolymers and blends thereof wherein the polymer has a density in the range of from 890 to 960 g/litre.